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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,981	06/20/2003	Edward F. Rakiewicz	1764A1	7146

7590 12/06/2006

PPG INDUSTRIES, INC.  
Intellectual Property Department  
One PPG Place  
Pittsburgh, PA 15272

EXAMINER

MAYEKAR, KISHOR

ART UNIT PAPER NUMBER

1753

DATE MAILED: 12/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/600,981	<b>Applicant(s)</b> RAKIEWICZ ET AL.	
	<b>Examiner</b> Kishor Mayekar	<b>Art Unit</b> 1753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 11 and 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-23 and 25-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>01/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election with traverse of species barium in the reply filed on 23 october2006 is acknowledged. The traversal is on the ground(s) that "a search for any one species would include or overlap a search of the other species, and thus, a search for all species claimed would not put an undue burden on the Examiner". This is not found persuasive because the record reflects that all of these groups are patentably distinct and have been propel considered.

The requirement is still deemed proper and is therefore made FINAL.

### *Specification*

2. The disclosure is objected to because of the following informalities: the incorrect phrase "in the form soluble metal" in line 16 of page 4 and the non-disclosed reference of Comparative Example A in Table 1 (i.e. the constituent of the electrodeposition bath).

Appropriate correction is required.

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

*Claim Rejections - 35 USC § 112*

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-10, 12-23 and 25-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the recitation "an electrodeposition bath containing" in the claim body is confusing as whether the electrodeposition bath in the claim body is the same as the electrodeposition referred in the claim preamble or another. The Markush is improperly recited, as it is not in the format "selected from the group consisting of". Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term "rare earth metal" in the claim is used by the claim to mean "metal selected from the group consisting of magnesium, strontium, barium and mixtures thereof", while the accepted meaning is "the lanthanides, yttrium and cerium". The term is indefinite because the specification does not clearly redefine the term.

In claim 5, the recitation "based on electrodeposition weight" is confusing as whether the electrodeposition weight is the same as the electrodeposition bath weight or another.

In claim 6, the same is applied to claim 5.

In claim 15, the recitation "an electrodeposition bath containing" is confusing as to its relation to the recited aqueous electrocoating composition. And the same is applied to claim 1 to the recitations of the Markush group and "rare earth metal ... mixtures thereof".

*Claim Rejections - 35 USC § 103*

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-10, 12-23 and 25-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima et al. (US 7,005,051 B2) in view of Nakao et al. (US 6,838,506 B2). Kojima's invention is directed to a process for forming layered coating films. Kojima discloses that the process comprises the step of electrodepositing a coating from a lead-free cationic electrodeposition composition upon a substrate where the composition

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comprises a binder of a cationic resin having a functional group and a curing agent, pigment, solvent and various kinds of additives (col. 4, lines 1-7). Kojima further discloses that the lead-free cationic electrodeposition composition has a metal ion content of 500 ppm or less (see abstract), wherein the metal ion includes a metal catalyst such as bismuth nitrate (col. 6, lines 13-18) and metal ion eluted from the pigment (col. 6, lines 33-40). Since Kojima's metal ion content is not greater than 500 ppm, Kojima's soluble metal such as bismuth nitrate is also met the recited condition. Kojima also discloses that pigments include extender pigments and rust preventive pigments (col. 5, lines 47-56). The difference between Kojima and the above claims is the provision of a barium compound in the composition. Nakao shows in a lead-free cationic electrodeposition composition the provision that extender pigments include barium sulfate and barium carbonate (col. 9, lines 6-9). The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Kojima's teachings as shown by Nakao because the selection of any of known equivalents of extender pigments would be within the level of ordinary skill in the art.

As to the subject matter of claims 10, 14 and 23, since Kojima discloses metal ion eluted from pigment and Nakao shows barium compound as one of the pigments, it appears that eluted pigments include salt of barium nitrate in association with neutralizing nitric acid, absent of evidence to the contrary.

As to the subject matter of each of claims 26-30, Kojima discloses that the

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substrate to be coated is not limited to but those having conductivity, and iron plate, steel plate, aluminum plate, and surface treated objects thereof (col. 8, lines 39-42 and paragraph crossing cols. 25 and 26). As such the selection of any of known equivalent conductive substrates would be within the level of ordinary skill in the art.

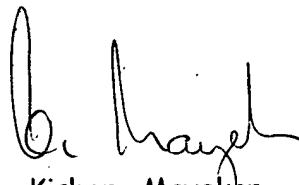
8. Claims 10, 14 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima '051 as modified by Naka '506 as applied to claims 1-9, 12, 13, 15-22 and 25-32 above, and further in view of prior art disclosed in Modly (US 3,956,007). The difference between the references as applied above and the instant claims is the use of soluble barium metal. Modly shows that soluble barium has been used in prior art as color pigments in the paint (col. 1, lines 24-27). The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the references' teachings as shown by prior art in Modly because its use in the paint is known and the provision of soluble barium as color pigment in the references would be within the level of ordinary skill in the art.

### *Conclusion*

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kishor Mayekar whose telephone number is (571) 272-1339. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Kishor Mayekar', is positioned above the printed name and title.

Kishor Mayekar  
Primary Examiner  
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